SELV IP65 IP67 RoHS JET

Size: 6.69 in x 2.48 in x 1.57in (170mm x 63mm x 40mm)

OPTIONS

- Output Current
- Optional Timer Dimming Function

FEATURES

- Built-In 10KV lightning surge protection (EN6100-4-5)
- 90~305VAC Full Range Input
- Active PFC
- Output Range up to 200VDC
- Aluminum Case (IP65/IP67) Waterproof
- Dual Mode Over Temperature Thermal Design
- Output Voltage Automatic Tracing & Fixing Function
- Built-In 3 in 1 Output Current Dimming Function (Type B)
- Optional Timer Dimming Function
- Class 2 Power Unit/ Passes LPS
- Long Lasting Lifetime
- UL/CB/CCC/CE/PSE Approvals
- Outdoor LED Luminary Rugged Driver Solutions
- 2 Year Warranty

APPLICATIONS

- Outdoor Lighting

DESCRIPTION

The PSMDC060 series of AC/DC LED driver power supplies offers up to 70 watts of output power in a 6.69” x 2.76” x 1.57” case. This series consists of various output voltages with a 90~305VAC input voltage range. These series are protected against short circuit, over voltage, and over temperature conditions. The PSMDC060 series has an IP65/IP67 aluminum case, waterproof design and is useful in outdoor lighting scenarios. All models have UL/CB/CCC/CE/PSE safety approvals and a 2 year warranty.

MODEL SELECTION TABLE

Model Number(1)	Input Voltage Range(2)	Rated Current	Ripple & Noise(3)	Current Adjustment Range(4)	Output Power	Output Voltage	Output Voltage Max(5)	Efficiency(6)
PSMDC-060-0350	90~305VAC	350mA	0.5Vp-p	100~200V	70W	100~200V	213V	91%
PSMDC-060-0700		700mA	0.2Vp-p	50~100V	70W	50~100V	104V	91%
PSMDC-060-1050		1050mA	0.2Vp-p	35~70V	70W	35~70V	74V	91%
PSMDC-060-1400		1400mA	0.2Vp-p	25~49V	68W	25~49V	52V	90%
PSMDC-060-1750		1750mA	0.2Vp-p	18~35V	60W	18~35V	42V	90%
PSMDC-060-2280		2280mA	0.2Vp-p	14~27V	60W	14~27V	32V	89.5%

SPECIFICATIONS

All specifications are based on 25°C, Nominal Input Voltage, and Maximum Output Current unless otherwise noted.
We reserve the right to change specifications based on technological advances.

SPECIFICATION	TEST CONDITIONS	Min	Typ	Max	Unit
INPUT SPECIFICATIONS					
Input Voltage Range		90		305VAC	VAC
Input Frequency		47		63	Hz
Power Factor[7]	115VAC		>0.98		
	230VAC		>0.96		
	264VAC, @ Full Load		>0.94		
Total Harmonic Distortion	@230VAC/ 50Hz, @Full Load		<20		%
Input Current	115VAC		0.75		A
	230VAC		0.4		
	277VAC		0.35		
Inrush Current	@230VAC, Cold Start		60		A peak
Leakage Current	277VAC		<0.75		mA
OUTPUT SPECIFICATIONS					
Output Voltage		See Table			
Output Current Tolerance		-5		+5	%
Line Regulation		-1		+1	%
Turn-On Time	@115VAC			1.5	S
	@230VAC, @Full Load		0.5		
Hold-Up Time	115VAC, @Full Load	12			mS
Output Power		See Table			
Ripple & Noise[2]		See Table			
Output Ripple Current		-5		+5	%
PROTECTION					
Short Circuit Protection		Auto Recovery or Power Reset			
Over Voltage Protection		Power Reset			
Over Temperature Protection[8]	Auto Recovery	75	85	95	ºC
Over Temperature De-Rated[8]	Over 70ºC, Fixed 75% load output				
ENVIRONMENTAL SPECIFICATIONS					
Operating Temperature		-40		70	ºC
Storage Temperature		-40		85	ºC
Operating Humidity	Non-Condensing	10		95	%RH
Storage Humidity		10		95	%RH
Vibration	IEC 68-2-2-1995/CNS-3629-C6016/GB/T 2423.10-2008; 5-500Hz, 1.0G, 1 Oct/min, 2 Cycle X, Y, Z, 75 Minutes				
MTBF	MIL-HDBK02175 (25ºC)	350			Khrs
Hi-Pot	I/P-O/P		3.75		KVAC
	I/P-PE		2		
	O/P-PE		0.5		
Insulation Resistance	I/P-O/P, I/P-PE, O/P-PE: >100MΩ/ 500VDC/ 25ºC/ 70%RH				
GENERAL SPECIFICATIONS					
Efficiency		See Table			
Life Time	230VAC, 100% Load, @ T-Case 70ºC	50,000			Hrs
Lightning Surge	10KV (L/N-PE) & 5KV(L-N)/1.2*50µ sec				
PHYSICAL SPECIFICATIONS					
Weight		1.61 lbs (730g)			
Dimensions (L x W x H)		6.69 x 2.48 x 1.57in (170 x 63 x 40mm)			
Case Material		Aluminum			
SAFETY & EMC CHARACTERISTICS					
Safety Standards	UL 8750[9], EN 61347-1, EN 61347-2-13, GB 19510.1, GB 19510.14				
EMI	EN 55015, EN 61000-3-2, EN61000-3-3 FCC Part18 CNS 14115 GB 17743				
EMS	EN 61547 EN 61000 (4-2, 4-3, 4-4, 4-5, 4-6, 4-8, 4-11) GB 17625.1				

NOTES

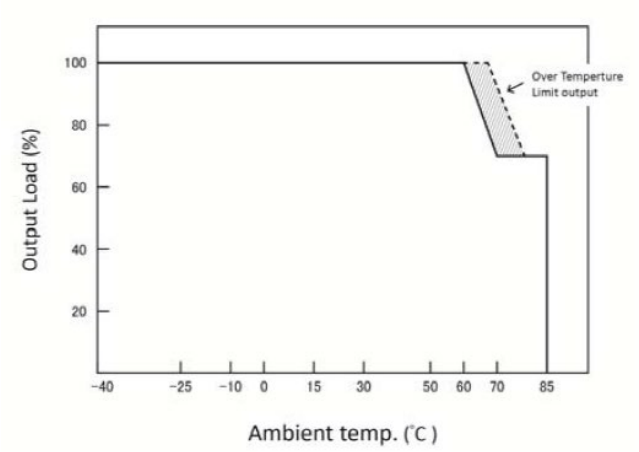
(1) PSMDC-060-XXX: Type A: IP65 Grade, Output Current Adjustable by Internal Variable Reisitor
Type B: IP67 Grade, Output Current Dimming by 0~10V/10V PWM signal/resistor
(2) For Input Voltage Range, please refer to “Input Voltage De-Rating Curve” Chart
(3) Ripple current is measured at 20MHz of bandwidth. The measured terminal is paralleled with a 22uF E-cap and a 0.1uF ceramic cap.
(4) For Type A Only
(5) Please refer to “LED Driving Output Mode” Chart
(6) For efficiency test conditions, please refer to “Efficiency Vs Load” Chart
(7) Please refer to “PFC Vs Load Curve” Chart
(8) Please refer to “Temperature De-Rating Curve” Chart
(9) This product is Listed to applicable standards and requirements by UL.

**Due to advances in technology, specifications subject to change without notice.*

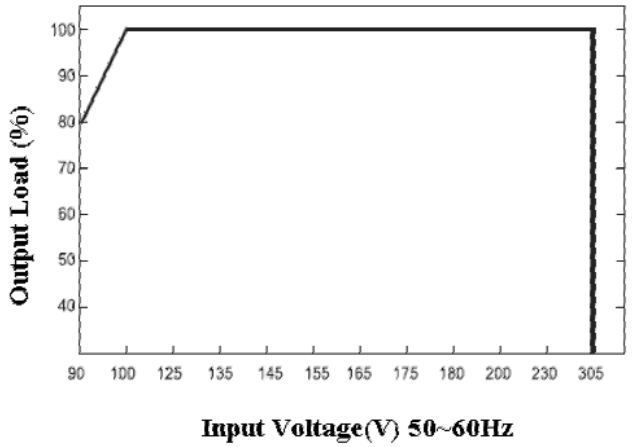
DERATING CURVES

Output Load De-Rating Curve

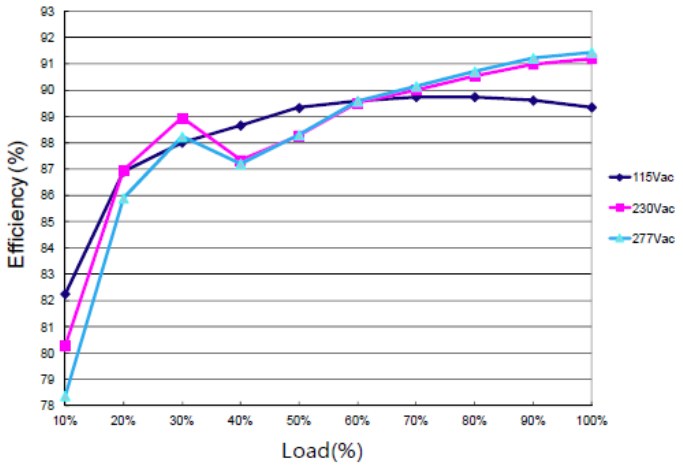
Temperature De-Rating Curve



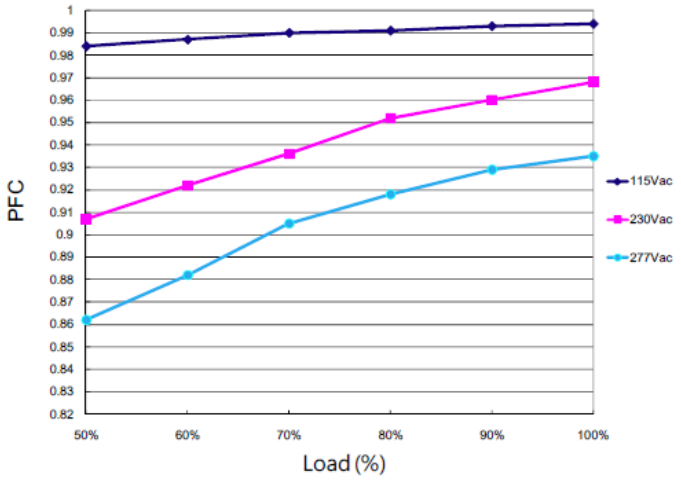
Input Voltage De-Rating Curve



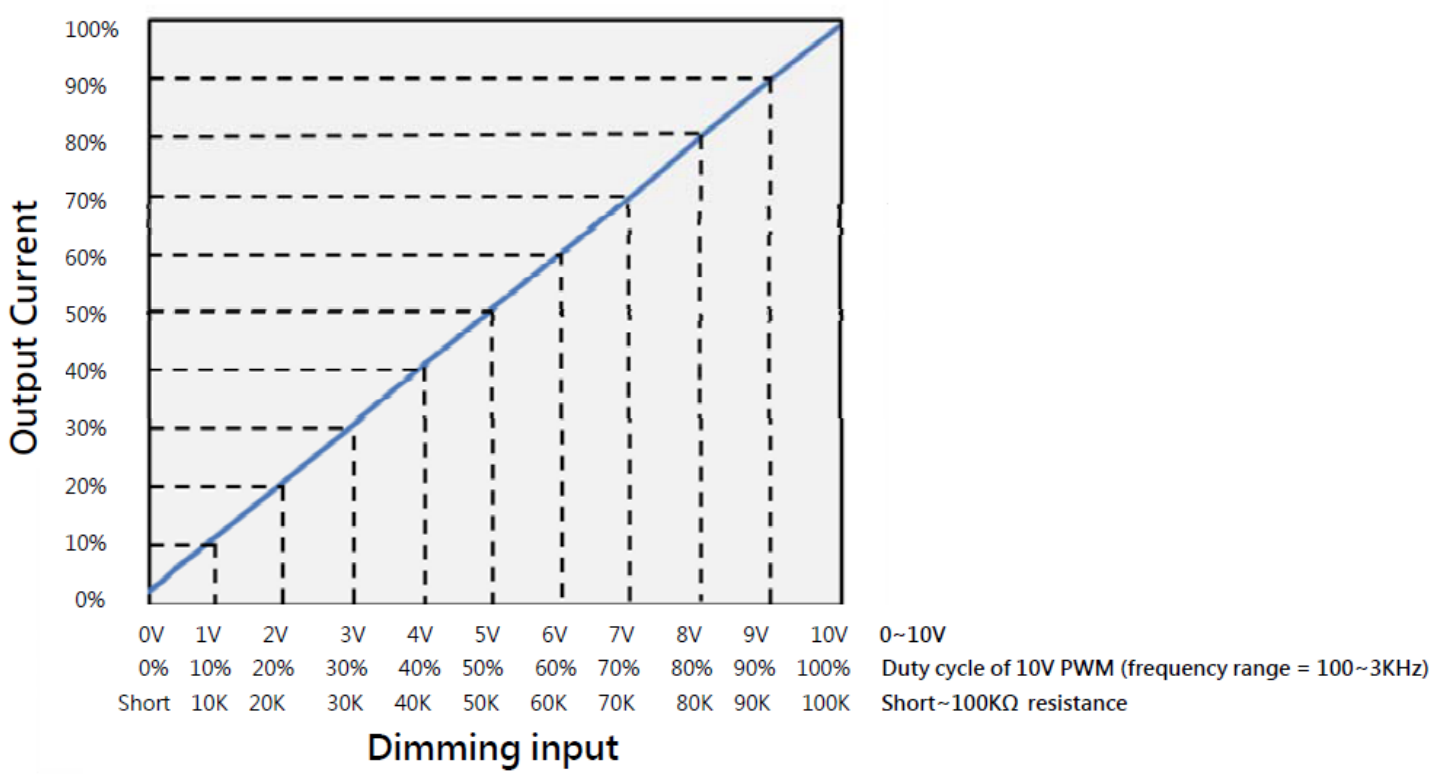
Efficiency Vs Load (PSMDC-060-0700)



Power Factor Vs Load (PSMDC-060-0700)



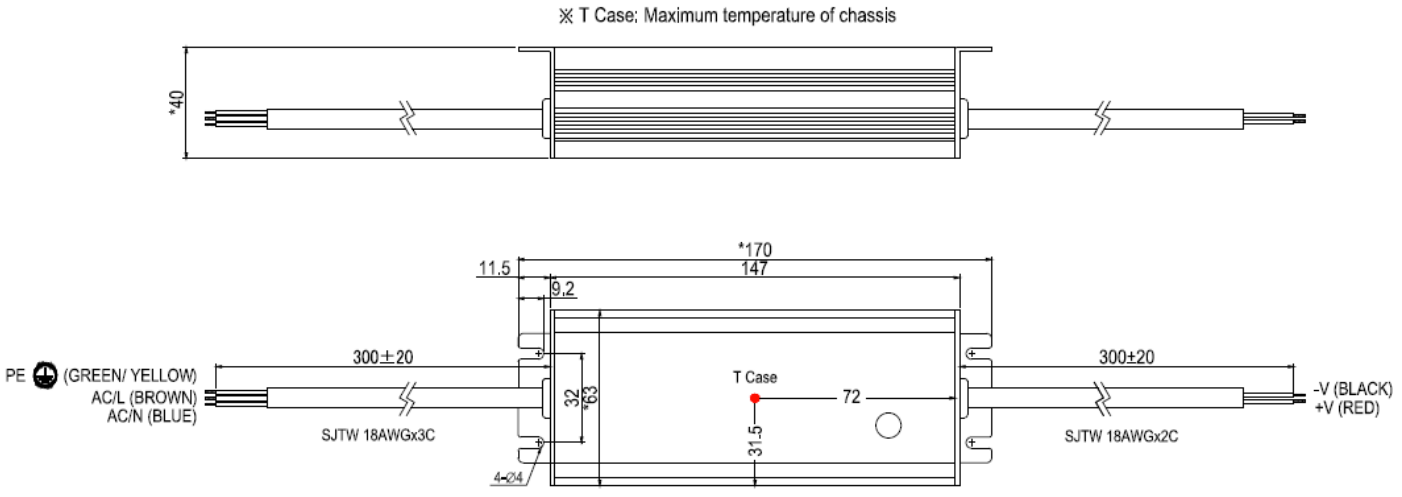
DIMMING CURVE (PSMDC-060-1750)



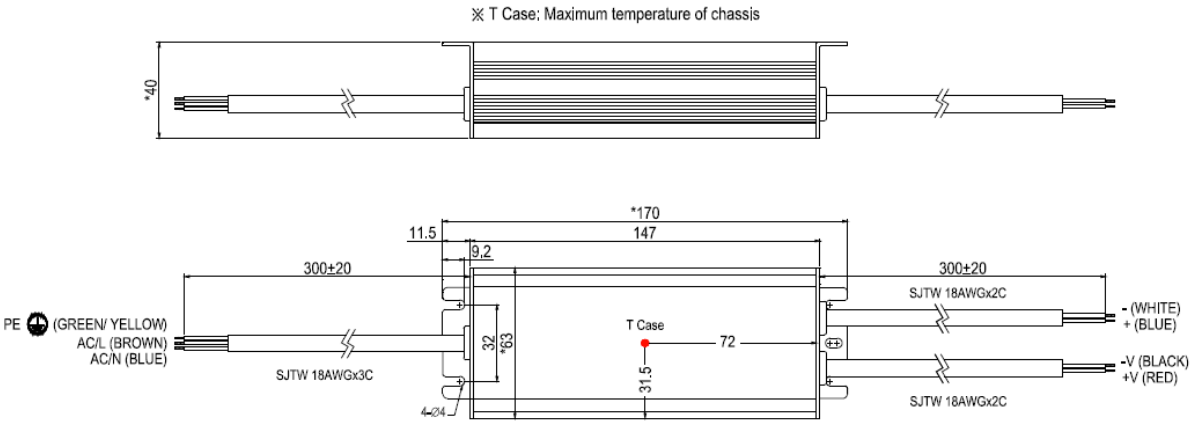
※Note : The output current drops down to 2.2% when the dimming input is short or 0Vdc.

MECHANICAL DRAWINGS

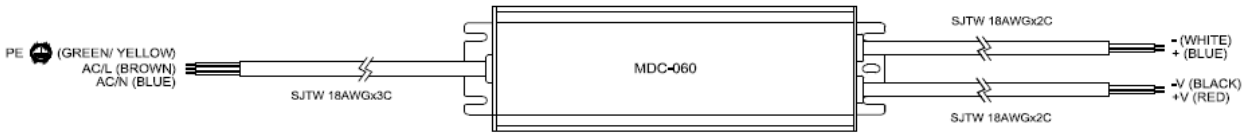
Type A



Type B



Dimming Mode (Type B Only)



* Do not put "**-V (BLACK)**" & "**– (WHITE)**" in connection

*Short~100KΩ Adjust Output Current

Resistor Value	Short	10KΩ	20KΩ	30KΩ	40KΩ	50KΩ	60KΩ	70KΩ	80KΩ	90KΩ	100KΩ	OPEN
Rated Current Rate	2.2%	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%	95~105%

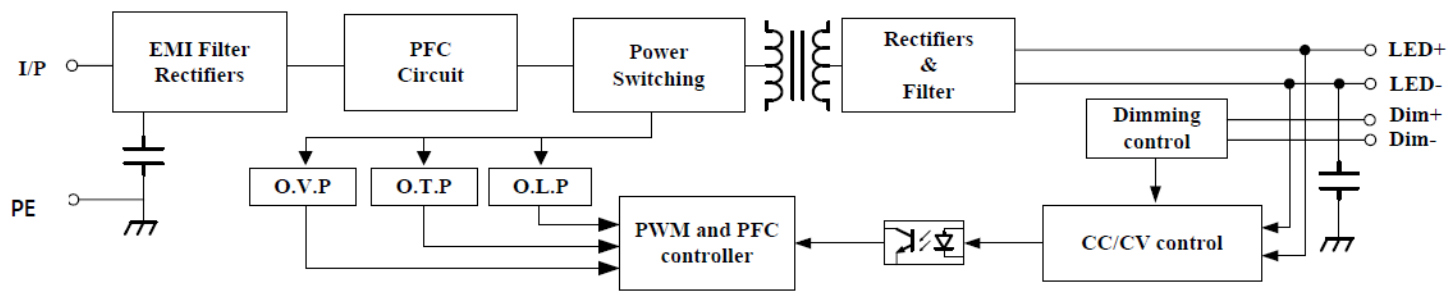
*0~10VDC Adjust Output Current

VDC	0V	1V	2V	3V	4V	5V	6V	7V	8V	9V	10V	OPEN
Rated Current Rate	2.2%	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%	95~105%

*10 V PWM Adjust Output Current; Frequency Range 100Hz~3KHz

Duty	0%	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%	OPEN
Rated Current Rate	2.2%	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%	95~105%

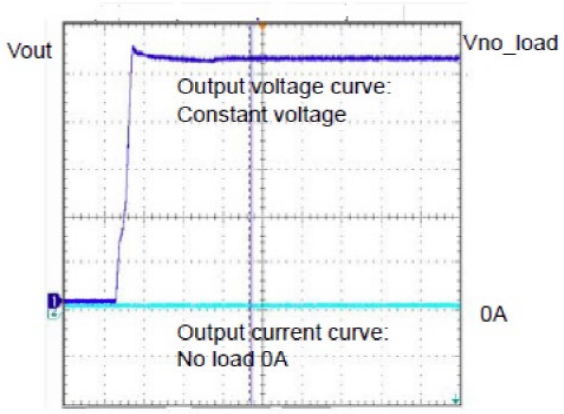
FUNCTION BLOCK



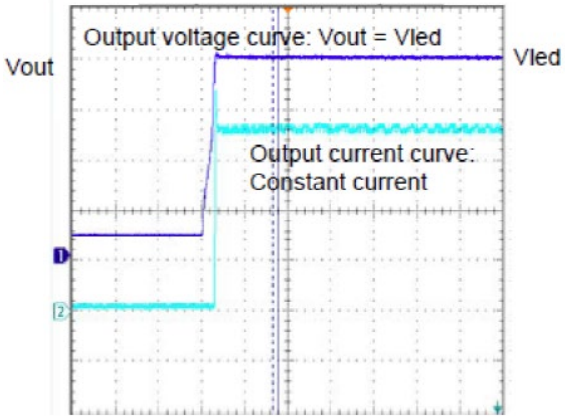
LED DRIVING OUTPUT MODE

LED Driver output characteristics with constant voltage mode (CV) & constant current mode (CC) to direct drive all kinds of LED lighting correctly

No load start up waveform:
Vout = Vno_Load (CV)



Connecting LED load start up waveform:
Vout = Vled; Iout = Iset (CC)
(Iset = Default output current)



COMPANY INFORMATION

Wall Industries, Inc. has created custom and modified units for over 50 years. Our in-house research and development engineers will provide a solution that exceeds your performance requirements on-time and on budget. Our ISO9001: 2015 certification is just one example of our commitment to producing a high quality, well-documented product for our customers.

Our past projects demonstrate our commitment to you, our customer. Wall Industries, Inc. has a reputation for working closely with its customers to ensure each solution meets or exceeds form, fit and function requirements. We will continue to provide ongoing support for your project above and beyond the design and production phases. Give us a call today to discuss your future projects.

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